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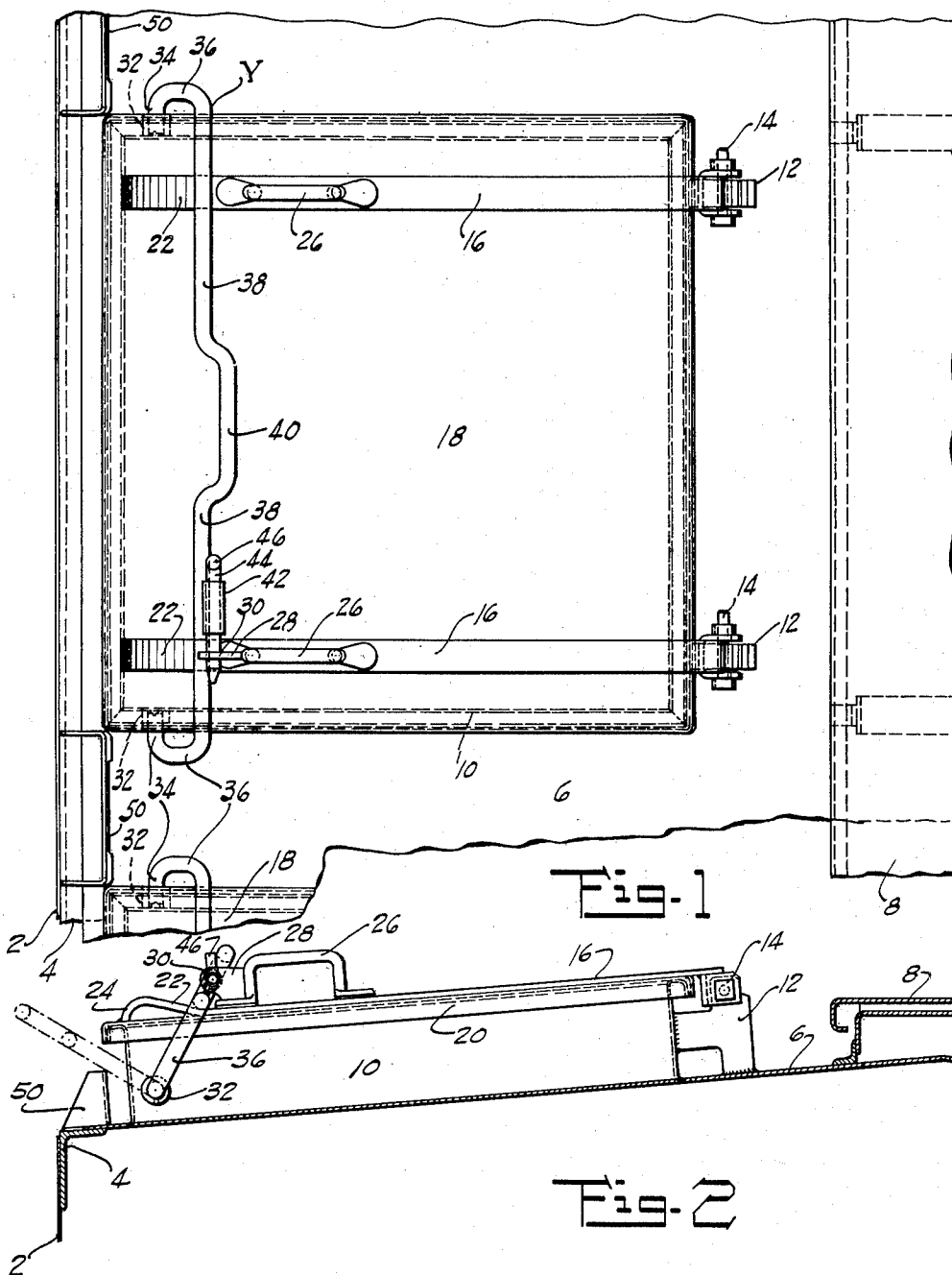
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LATCH FOR RAILWAY CAR HATCH COVER

Filed May 7, 1952

2 Sheets-Sheet 1



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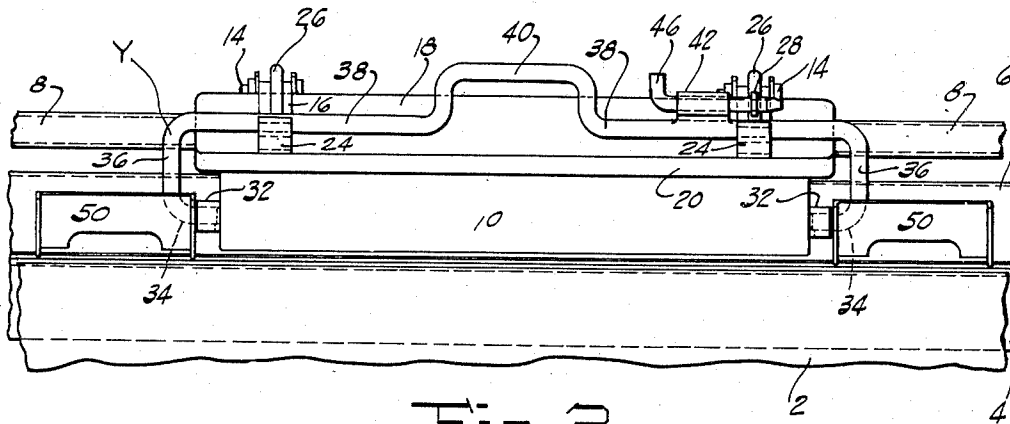


Fig. 3

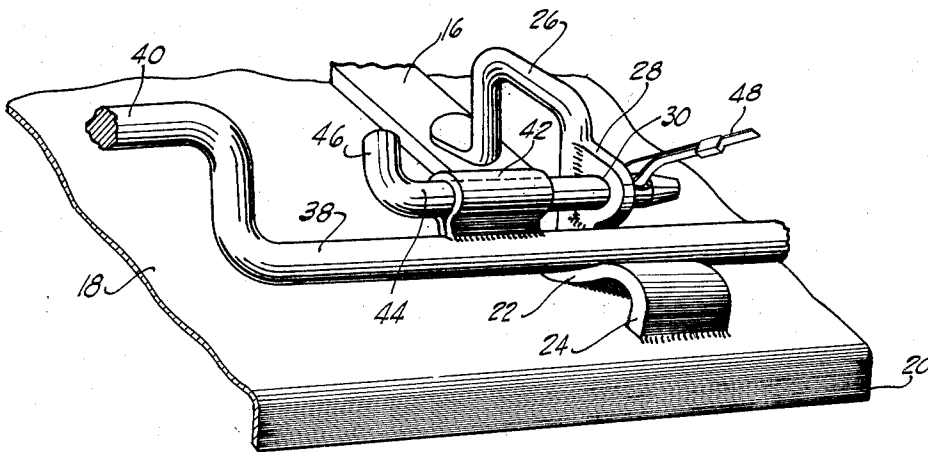


Fig. 4

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LATCH FOR RAILWAY CAR HATCH COVER

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1 Claim. (Cl. 105—377)

This invention relates to hatch latching means in general, but in particular to such means for application to railway cars.

Railway car structures have previously been built having a plurality of hatch openings in the roof covered by a plurality of independent hatch covers. Attempts have been made to lock these hatch covers by multiple means, but these have not been too satisfactory due to weaving of the car structure with resultant mis-alignment of parts. Also, attempts have been made to individually lock the hatch covers by substantially rigid members, which again have not been satisfactory due to the inability to accommodate shifted positions and mis-alignment, due to fabrication and weaving of parts in service. It is an object therefore of the present invention to provide a railway car hatch cover having latching means therefor with some degree of resiliency built therein.

A further object of the invention is the provision of a railway car hatch cover latching means in which a yoke member straddles the hatch cover in the nature of a bar and is locked to the hatch cover by interengaging means.

A still further object of the invention is the provision in a railway car hatch cover of a C-shaped yoke normally straddling and locked to the hatch cover but swingable to release the cover and form a safety guard for preventing accidents.

These and other objects of the invention will be apparent to persons skilled in the art from a study of the following description and accompanying drawings, in which

Fig. 1 is a plan view of a portion of the car showing the improved hatch latching means;

Fig. 2 is an end view of the improved latch means;

Fig. 3 is a side or elevational view of the improved latching means; and

Fig. 4 is a partial perspective showing the locking of the latch to the hatch cover.

Referring now to the drawings in detail it will be seen that the railway car, which is of conventional form, has only the side 2, plate 4, and roof 6 shown. The roof adjacent its center carries the customary running board 8 and on either side of this running board between the same and the plate are a plurality of hatch openings surrounded by hatch frames 10 welded to or made integral with the roof 6. As shown, the hatch frames are preferably rectangular and, as clearly shown in Fig. 2, have the legs of T-shaped hinge members 12 welded or otherwise secured to the side adjacent the running board. The downwardly turned arm of the hinge member is welded or otherwise secured to the roof, while the upstanding arms are connected by pins 14 to the inner ends of hinge straps 16. These hinge straps are welded or otherwise secured to the hatch cover 18 adapted to seat on the frame and seal against entrance of moisture through down-turned flanges 20. As clearly shown, the hinge straps extend from the hinged edge of the cover across the same and have their ends turned upwardly, as at 22, and thence downwardly, as at 24, for weld securement to the upper surface of the cover.

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These ends form cam portions on the hinge straps which will be slightly resilient or yieldable due to their spaced attachment to the cover. Each hinge strap has attached thereto a lifting handle 26, and one of these handles has formed thereon an outstanding portion 28 pierced, as at 30, and forming a keeper, later to be referred to. In cases where it is desirable to use short hinge straps corrugations will be pressed in the door plate and enlarged at the ends to provide the cam portions. The door plate will provide the desired resiliency and the handles may be attached at any point on the door with the keeper carried either by the handle or as a separate piece attached to the corrugation.

The side walls of the hatch frame have welded or otherwise secured thereto socket members 32 adapted to receive the intumed ends 34 of the yoke member Y. From the intumed ends the yoke is provided with upstanding portions 36 bent inwardly to provide portions 38 extending across the hinge straps and merging into upwardly and inwardly directed portions joined together to form an operating handle 40. It will be seen that the yoke is of C form, having the intermediate portion bent to form the operating handle. It will also be seen that due to the placement of the operating handle with respect to the various bends and intumed ends the yoke will be slightly resilient and can spring or yield intermediate its ends. One of the yoke portions 38 has welded or otherwise secured thereto a tubular member 42 in which is slidably mounted a bolt 44 having an operating end 46. It will be seen that the placement of this sliding bolt and tubular member 42 is such that the bolt cannot accidentally be lost, due to its proximity to the operating handle 40. The sliding bolt is adapted to interengage with the keeper through the projection of bolt 44 through keeper hole 30. With the parts in their locked position shown in Fig. 3, a seal or other means 48 may be inserted through the bolt to indicate unauthorized entrance to the car.

While the hatch cover 18 has been shown and described as hinged adjacent the running board to open transversely of the car, it is obvious that the covers may be hinged transversely of the car, in which case they would swing longitudinally thereof. With the covers hinged as shown and the yokes mounted as shown the space between the covers is partially closed adjacent the side plates by upstanding members 50. These members are of channel cross-section and form foot plates to protect operators against slipping off the roof of the car, and at the same time serve as stops limiting the outward swinging movement of the yokes. It will be seen that with the yokes in either open or closed position they, together with the stops 50, form safety guards extending substantially the full length of the car and will help to protect persons moving along the car roof from slipping off the roof.

Assuming the yoke in the open position, as shown in the line and dot position of Fig. 2, the hatch covers will be closed and the operating handle 40 grasped and pulled inwardly bringing the relatively straight portions 38 over the cam end portions of the hinge straps. Due to the yielding quality of the yoke and of the came portions, inequalities in fabrication or in seating of the cover on the frame will be accommodated. As soon as the yoke has been pulled to its innermost position, the bolt 44 may be slid through the hole 30 of the keeper and sealed in position, as indicated in Fig. 4.

While the invention has been described more or less in detail with specific reference to the accompanying drawings, it is obvious that various changes and modifications may be made without departing from the scope of the invention as defined by the following claims.

What is claimed is:

In a railway car construction the combination of, a car roof, a hatch frame surrounding an opening in the roof,

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a hatch cover member normally seated on the frame to cover the opening, hinge straps secured to the cover and pivotally mounted at one end on the car, a C shaped yoke member straddling the hatch cover when in closed position and having intumed ends pivoted to the hatch frame sides adjacent the free edge of the cover, said yoke member having a portion thereof intermediate the ends bent upwardly to provide a handle, portions of said yoke member between the handle and pivoted ends bearing on said cover member to retain the same seated on the frame, a tubular member secured to said yoke between said handle and one of said hinge straps and having its major axis in the plane of the major axes of said yoke and said handle, a bolt slidably carried by said tubular member and being of a length greater than the distance between said tubular member and said handle, and a bolt keeper secured to

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said cover adjacent the free edge thereof at a distance from said tubular member less than the distance between said tubular member and said handle whereby said bolt may engage and disengage said keeper and is prevented by said handle from disengaging said tubular member.

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